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EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1754

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8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/828,898	Applicant(s) Maunula
	Examiner Cam Nguyen	Art Unit 1754

-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11/04/02 (an election)

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-34 is/are pending in the application.

4a) Of the above, claim(s) 17, 18, and 26-34 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16 and 19-25 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on Apr 10, 2001 is/are a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5

4) Interview Summary (PTO-413) Paper No(s). _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Election/Restriction

2. Applicant's election with traverse of Group I invention, claims 1-16 & 19-25, in Paper No. 8 is acknowledged. The traversal is on the ground(s) that "the subject matter of Groups I, II and III is sufficiently related that a thorough search for the subject matter of any one group would overlap with a search for the subject matter of the remaining group. Thus, it is respectfully submitted that the search and examination of the entire application could be performed without serious burden. MPEP 803 clearly states that "If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on its merits, even though it includes claims to distinct or independent inventions" is noted.

However, applicants' urging is not found persuasive for the same reasons as indicated in the last office action, and since the search required for Group I is not required for Group II or Group III, thus, if all Groups are searched, an additional burden is imposed on the Office due to three different searches being required.

The requirement is still deemed proper and is therefore made FINAL.

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3. Claims 17-18 & 26-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

Claim Objections

4. Claims 4, 8, & 16 are objected to because of the following informalities:

- A. In claim 4, line 1, "forth" should be --fourth--.
- B. In claim 8, line 4, it appears that the phrase "at least a portion of said adsorbents" and "a part of them" contain the same meaning. One of these two phrases should be deleted.
- C. In claim 16, line 2, "mainly" should be deleted.
- D. In claim 16, line 2, "aluminium" should be --aluminum--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112 (Second Paragraph)

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-16 & 19-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- ✓ A. Claim 1 recites the limitation "the surface area" in line 6. There is insufficient antecedent basis for this limitation in the claim.
- ✓ B. Claim 10 recites the limitation "the second catalytic metal" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- ✓ C. Claim 11 recites the limitation "whereby volume refers to the volume of the honeycomb formed from the foils" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- ✓ D. Regarding claim 12, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- ✓ E. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

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In the present instance, claim 12 recites the broad recitation "and in the support material of the other foil the concentration is 0-10% by weight", and the claim also recites "3-8% by weight" which is the narrower statement of the range/limitation.

F. Regarding claim 14, line 2, the phrase "various foils" is unclear as to what foils applicants intended to recite. Thus, renders the claim vague and indefinite.

G. Regarding claim 15, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

H. In claim 20 & 21, line 2, the phrase "substantially identical which differ from each other" is unclear because it does not particularly point out the composition structure of the first and second coatings. "Substantially identical" is not "identical". Also, if the two coating compositions are different from each other then how can the first and second coating compositions be identical? Thus, renders the claim vague and indefinite.

I. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary

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of the remainder of the claim, and therefore not required, or (b) a required feature of the claims.

Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 24 recites the broad recitation “the concentration in the other foil is 15-25% by weight”, and the claim also recites “the concentration in the other foil is 2-5% by weight” which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102(b)

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-8, 10, 16, & 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by

Hu et al., “hereinafter Hu”, (US Pat. 5,597,771).

Hu discloses a layered catalyst composite comprising a first layer and a second layer. The first layer comprises a first support. The first layer comprises a first palladium component and optionally, at least one first platinum group metal component other than palladium, an oxygen storage component in intimate contact with the platinum group metal component in the first layer. Preferably, the first layer additionally comprises a first zirconium component, at least one

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first alkaline earth metal component, and at least one first rare earth metal component selected from the group consisting of lanthanum metal components and neodymium metal components. The second layer comprises a second palladium component and optionally, at least one second platinum group metal component other than palladium. Preferably, the second layer additionally comprises a second zirconium component, and at least one second rare earth metal component, and at least one second rare earth metal component selected from the group consisting of lanthanum metal components and neodymium metal components. Optionally, the first and/or second layers comprise an oxygen storage composite in particulate form. The oxygen storage composite preferably comprises ceria and zirconia and yet more preferably a rare earth component selected from the group consisting of lanthanum and neodymium components and mixtures thereof. See col. 8, ln 18-63. The first and second layer compositions comprise a first support and the second support which can be same or different. Suitable supports include silica, alumina, and silica-alumina. See col. 12, ln 66- col. 13, ln 14. Hu further discloses the layer catalyst composites disclosed are polyfunctional which have the capability of substantially simultaneously catalyzing the oxidation of hydrocarbons and carbon monoxide and the reduction of nitrogen oxides (see col. 7, ln 31-37).

Hu discloses the claimed adsorbent catalyst containing the claimed catalytic metal components, thus anticipates the claims.

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Claim Rejections - 35 USC § 102(e)

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 5, 8-9, 16, & 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Friedman et al., "hereinafter Friedman", (US Pat. 6,071,850).

Friedmann discloses a catalytically-active metal member comprising: (1) a metal foil substrate having first and second primary surfaces and an edge surface, (2) a first catalyst and catalyst support material layer deposited on at least a portion of the first primary surface, said layer comprising a first catalyst and a first catalyst support material, and (3) at least one second catalyst and catalyst support material layer deposited on top of said first catalyst and catalyst support material layer, each of said second catalyst and catalyst support material layer comprising a second catalyst and a second catalyst support material (see col. 12, claim 1). The first and second catalyst support material is a ceramic oxide, and suitable ceramic oxides disclosed

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include alumina (see col. 12, claim 2). Friedmann further discloses at least a portion of the metal foil substrate is corrugated (see col. 12, claim 5), which inherently discloses that the other portion of the metal foil substrate surface is smooth. The first and second catalyst is a precious metal catalyst (see col. 12, claim 6), and the typical precious metals are platinum, palladium, and/or rhodium (see col. 8, ln 38-39).

Friedmann discloses the claimed adsorbent catalyst, thus anticipates the claims.

Allowable Subject Matter

11. Claims 11-15 & 22-25 contain allowable subject matter, but since they are being rejected under 35 USC 112 (second paragraph) and objected to as being dependent upon a rejected base claim, they are not allowed. However, the claims would be allowable if the 35 USC 112 (second paragraph) issues are resolved, and the claims are rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is the reasons for allowance of the claimed subject matter:

As concern with claim 11, the prior art does not disclose or fairly suggest an adsorbent catalyst having the claimed Pt concentrations contained in the two foils as described in claim 9.

As concern with claim 12, the prior art does not disclose or fairly suggest an adsorbent catalyst having the claimed first NOx adsorbent concentrations contained in the two foils as described in claim 9.

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As concern with claim 13, the prior art does not disclose or fairly suggest an adsorbent catalyst having the claimed second NOx adsorbent concentrations contained in the two foils as described in claim 9.

As concern with claim 14, the prior art does not disclose or fairly suggest an adsorbent catalyst having the claimed redox adsorbent concentrations contained in the two foils as described in claim 9.

As concern with claims 15 & 25, the prior art does not disclose or fairly suggest an adsorbent catalyst requiring the adsorbents are wholly in the support material of one foil, and the catalytic metals are wholly in the support material of the other foil, wherein the two foils are as described in claim 9.

Regarding claim 22, the prior art does not disclose or fairly suggest an adsorbent catalyst requiring the claimed first NOx concentrations in both foils.

Regarding claim 23, the prior art does not disclose or fairly suggest an adsorbent catalyst requiring the claimed second NOx concentrations in both foils.

Regarding claim 24, the prior art does not disclose or fairly suggest an adsorbent catalyst requiring the claimed redox adsorbent concentrations in both foils.

Citations

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Mussmann et al. (US Pat. 6,294,140 B1), Yamamoto et al. (US Pat. 6,047,544), Sung et al. (US Pat. 6,087,298), Koberstein et al. (US Pat. 5,001,103), Hu et al. (US Pat. 6,254,842 B1), Bolshakov et al. (US Pat. 5,688,740), Susuki et al. (US Pat. 6,159,897), Suzuki et al. (US Pat. 6,306,794 B1), Deeba et al. (US Pat. 6,093,378), Deeba et al. (US Pat. 6,375,910 B1), Lindner et al. (US Pat. 6,384,430 B1), Lindner et al. (US Pat. 6,180,075 B1), Brisley et al. (US Pat. 6,413,483 B1), Domesle et al. (US Pat. 5,628,925), Nonnenmann (US Pat. 4,665,051), Mizuno et al. (US Pat. 6,500,392 B2), Mizuno et al. (US Pat. 6,139,808), Dou et al. (US Pat. 6,391,822 B1), Takada et al. (US Pat. 4,849,398), Deeba et al. (US Pat. 6,375,910 B1), Deeba et al. (US Pat. 6,497,848 B1), Yamada et al. (US Pat. 6,221,804 B1), Muramoto (US Pat. 5,547,913), & Abe et al. (US Pat. 5,538,697) are cited for related art.

Conclusion

13. Claims 1-34 are pending. Claims 1-16 & 19-25 are rejected. Claims 17-18 & 26-34 are withdrawn due to nonelected (distinct) invention. No claims are allowed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (703) 305-3923. The examiner can normally be reached on M-F from 8:30 am. to 6:00 pm, with alternative Monday off.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (before finals) and (703) 872-9311 (after-final).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Nguyen/cnn CNN

January 13, 2003



Cam Nguyen

Patent Examiner